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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/692,415

10/23/2003

David W. Boerstler

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11/08/2005

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EXAMINER

LEJA, RONALD W

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 11/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/692,415

Applicant(s)

BOERSTLER ET AL.

Examiner

Ronald W. Leja

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,7-12,29,31 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,7-12,29,31 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Applicants' Response of 10/14/2005 has been entered and has overcome the use of Aipperspach et al. (6,509,236) as Prior Art. The Finality of the Office Action of 8/10/2005 has been withdrawn and the following new rejections follow:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4, 7-12, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertin et al. (6,141,245) in view of Bakulin et al. (6,927,957).

Bertin et al. disclose in Figure 1, a system for de-coupling a capacitive path (30) from an IO pad (25) and a protected component (20) (a processor for Claims 2 & 32) wherein a first circuit (50) is a fuse (for Claim 3) and a second circuit (55) (fuse blow pad for Claim 4) able to cause the first circuit to cease conducting in response to variations in voltage or current wherein a node is coupled to the first circuit (between (55) and (30)) and a capacitive path (30) is decoupled from the IO pad and protected

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component (20) in response to the first circuit (50) ceasing to conduct. (See Col. 4, lines 19-44). Bertin et al. do not appear to disclose details about the protective device (30) except that it is commonly known in the art (see Col. 4, lines 27-31). However, Bakulin et al. teach that commonly known protective devices are diodes, i.e. (108 & 110). It would have been obvious to use the known diodes of Bakulin et al. as the commonly known protective device of Bertin et al. as a means to protect the protected component from both positive and negative transients arriving at the IO pad, before the device was mounted in a pcb or system, and therefore, less susceptible to ESD events, thus resulting in a more reliable product. As far as Claims 10 and 32, Bertin et al. disclose that a certain current flow is used to blow the fuse(s) (50), but do not exactly disclose the application of voltages to the pads and at values less than for activation of the protective device(s). It is the opinion of the Examiner, that it would have been obvious to apply different voltages at the respective pads as a means to effectively get a current to flow from one voltage potential to another voltage potential, which would blow the fuse, thereby resulting in the desired de-coupling of capacitance, which is undesirable as processor speeds increase (see Col. 1, lines 12-26). It also would have been obvious to keep the voltage potentials to a level insufficient to activate the protective device(s) since activation of the protective device would render the fuse blowing process unreliable, due to the different current flow path, (i.e. from the fuse blow pad thru the appropriate diode and not the IO pad). Claims 11 and 12 essentially add that the second circuit further requires a control input and that a single signal can control multiple second circuits. Figure 2(a) of Bertin et al. show the use of second circuit having control inputs (80a-n) and controlled by a signal (92), but do not specifically disclose that the second circuit

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shorts to ground upon receipt of the signal, but rather merely connects the fuse to a power supply. It is the opinion of the Examiner, that it would have been obvious to apply the appropriate voltage to the appropriate pad so as to get the desired current flow thru the fuse for blowing of the fuse. Use of a power supply would be necessary in either case, since if the fuse blow pad is ground, a voltage would be necessary at the IO pad so as to get the current flow.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bertin et al. in view of Bakulin et al. as applied to claims 1 and 3 above, and further in view of Eldridge et al. (6,621,260).


Claim 29 requires the use of a laser for fuse blowing. Eldridge et al. teach the use of a laser for fuse blowing. It would have been obvious to implement the laser as a means for fuse blowing so as to avoid having to apply a voltage source to each IO pad needing its associated fuse blown, thereby easing the process especially if a large number of fuses needed to be selectively blown.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald W. Leja whose telephone number is (571)272-2053. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2800. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ronald W. Leja
Primary Examiner
Art Unit 2836



rwl
November 6, 2005